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Title (54)Cladding Assemblies and Methods (Flash/Clad TM Procedures)  $(51)^7$ International Patent Classification(s) E04B 002/90 (22)Date of Filing: Application No: 2003.10.29 (21)2003257906 (30)Priority Data (33)Country (31)Number (32)Date 523374 2002.12.20 ΝZ Publication Date: 2004.07.08 (43)Publication Journal Date: 2004.07.08 (43)(71) Applicant(s) **Carter Holt Harvey Limited** (72)Inventor(s) Wall, Gilmore John (74)Agent / Attorney A J PARK, Level 11 60 Marcus Clarke Street, Canberra, ACT, 2601

#### **ABSTRACT**

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#### A method of construction which involves

attaching an array of battens to the building envelope frame (through building wrap if present) and a corresponding array of a flashing back plate at least to the battens,

fitting cladding panels each with at least one of its peripheries lapping part of a back plate and fixing each such panel through the lapped back plate into at least the batten, and

providing a complementary flashing member that engages with otherwise still revealed flashing member engagement features of such a back plate to thereby provide coverage of at least some of the back plate lapping peripheries and/or coverage of the fixing of such peripheries.

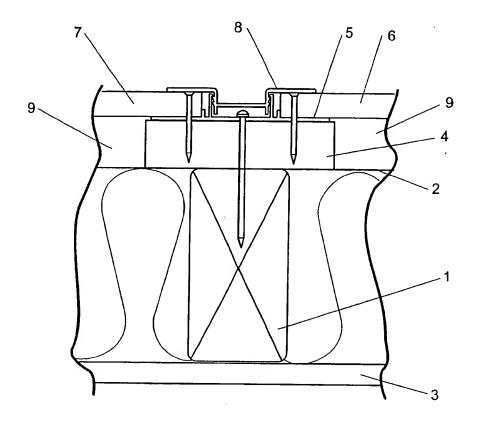


FIGURE 1

#### **ABSTRACT**

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#### A method of construction which involves

attaching an array of battens to the building envelope frame (through building wrap if present) and a corresponding array of a flashing back plate at least to the battens,

fitting cladding panels each with at least one of its peripheries lapping part of a back plate and fixing each such panel through the lapped back plate into at least the batten, and

providing a complementary flashing member that engages with otherwise still revealed flashing member engagement features of such a back plate to thereby provide coverage of at least some of the back plate lapping peripheries and/or coverage of the fixing of such peripheries.

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## AUSTRALIA PATENTS ACT, 1990

## **COMPLETE SPECIFICATION**

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## FOR A STANDARD PATENT

## **ORIGINAL**

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Invention Title:

Cladding Assemblies and Methods ("Flash/Clad TM

Procedures")

35 The following statement is a full description of this invention, including the best method of performing it known to us.

The present invention relates to flashing components, flashing assemblies, building methods and building assemblies, cladding procedures and related methods, components, subassemblies and assemblies, flashing detail for exterior cladding and/or exterior wall assemblies and related means and methods.

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The use of panels of appropriate weather resistant material (whether of a cementitous material, a lignocellulosic material (e.g. plywood)), or of any other weather resistant matrix has long been known. It is a characteristic of the use of such panels however to ensure weather resistance to the overall assembly such that underlying timber or other materials are not exposed to unduly wet or humid conditions.

With the concern over weatherproofing in modern building practices we have felt it appropriate to consider in relation to the exterior cladding of the envelope of a building structure a panel mounting procedure with appropriate flashing such that regions between panels whether on flat walls or at corners, are appropriate for the conditions.

One method of cladding with panels contemplated in recent times has been the provision of a wall frame (whether of metal or wood or both) that is preferably but optionally subjected to a peripheral building wrap (e.g. of for example, a water resistant material such as a plastics material) and thereafter to provide battens from the frame of the building envelope or walls which can define an airspace between the optional building wrap to allow air circulation and the subsequently positioned cladding panels.

It is to these types of structure that the present invention is preferably directed.

It is therefore an object that the present invention to provide aspects of the present invention which will at least provide the public with a useful choice and/or will provide some measure of protection for a structure using a flashing system between panels.

In one aspect the present invention consists in a method of construction which involves

providing or having been provided with a wall frame for the building envelope, (optionally but preferably) wrapping or otherwise covering the exterior of such frame with a building wrap,

attaching (substantially simultaneously or serially) an array of battens to the frame (through the building wrap if present) and a corresponding array of a flashing back plate at least to the battens,

fitting the cladding panels with at least one of their peripheries lapping part of a back plate and fixing each such panel through the lapped back plate into at least the batten, and providing a complementary flashing member that engages with otherwise still revealed flashing member engagement features of such a back plate to thereby provide coverage of at least some of the back plate lapping peripheries and/or coverage of the fixing of such peripheries.

Preferably the back plate is substantially of plate like planar section save for upstands on one side of the planar axis.

In some forms of the invention the wrap (e.g. a building paper) can be optional or be substituted by (e.g. the use any suitable film, treated sheet, or other moisture or vapour barrier material).

Preferably each such complementary flashing member has a negative detail, i.e. includes for example, a top hat section when viewed in its final fitted condition.

Preferably the back plate is an extrusion and preferably the complementary flashing member is an extrusion.

Preferably said extrusion is of aluminium.

Preferably said aluminium is powder coated or anodised.

Preferably the still revealed flashing member engagement features include at least one and upstands each having at least one (preferably one) retention shoulder or lip (hereafter "shoulder").

Preferably there are two shouldered upstands said retention shoulders are one per upstand and each is directed one towards the other.

Preferably the complementary flashing member is substantially of a top hat form with each outside of the channel wall of the top hat and/or some extension thereof including at least one ramped shoulder complementary of a retention shoulder of a shouldered upstand.

Preferably there are two ramped shoulders on each complementary flashing member.

Preferably each backing plate extrusion includes a second pair of upstands in addition to those each with a retention shoulder, such second pair of upstands being lesser in height from the plate plane and flanking the others so as to provide a buttable location feature for the edge of a panel over an outlying flanking part of the plate through which fixing attachment by nailing, screwing or the like is to occur.

Preferably the battens are screwed or nailed through the building wrap (if any) into studs of the wall.

Preferably the battens are screwed or nailed through the building wrap (if any) frame and/or top plates, bottom plates and/or nogs or dwangs where, as is desired, the flashing is to occur at the bottom or top of a panel or between a higher and lower panel.

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Preferably provision is made by way of location of a plugging member or block locatable on a vertically extending pairing of a flashing back plate and a complementary flashing member to block what otherwise may be an open end to the channel of any horizontally running pairing of the back plate extrusions and the complementary flashing member extrusions.

Preferably that arrangement is substantially as hereinafter described.

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In still a further aspect the present invention consists in a method as aforesaid but where different flashing combinations are used at internal and/or external corners or, if desired at the top and bottoms of a wall, e.g. the pairing at the top could be adapted to associate with a soffit.

In still a further aspect the present invention consists in an extruded back plate and/or extruded negative detail flashing of a kind suitable for use in a method of construction of the present invention.

In still a further aspect the present invention consists in a back plate extrusion having features or a form substantially as herein described with reference to any one or more of the accompanying drawings.

In still a further aspect the present invention consists in a top hat including flashing (preferably to co-act with a back plate of a complementary kind), said flashing extrusion being provided with the functional features and/or form substantially as hereinafter described with reference to any one or more of the accompanying drawings.

In a further aspect the invention consists in a structure clad by panels which has been erected by a method of construction in accordance with the present invention.

As used herein the term "method of construction" can include a method of cladding including steps preparing for such cladding with panels.

As used herein the term "and/or" means "and" or "or", or where the context allows, some hybrid of both.

As used herein the term "(s)" following a noun means the singular and/or plural forms of that noun.

As used herein the term "optionally" with respect to some step or feature means that such a step or feature can be treated as being non-existent or been existent and is irrespective of whether or not it is a preferred option or not.

In still a further aspect the present invention consists in, in combination, whether in assembly or disassembly, a pair of extruded members,

a first extruded member being adapted as a flashing back plate, said back plate having a generally planar form save for at least one pair of upstands, the or the most proximate pair of upstands each having at least one retention lip or shoulder ("shoulder"), and

a second and negative detailed extruded member (e.g. a top hat form) having exteriorally thereof spaced retention shoulder features each adapted to be complementary to and to be retainable by a complementary shoulder of the back plate,

wherein there is some degree of ramping of one or other of the complementary shoulder sets whereby the two extruded members can be brought into a retention relationship so that there is a prospect of flange lapping behind and in front of each of two panels to be flashed thereby.

Preferably the back plate includes a further pairing of upstands but of lesser height than the inner most pair of upstands, the lesser height upstand each to act as a butt locator of a properly lapping panel.

Preferably the negative detail flashing member has an extension of the walls of the top hat channel (preferably flat bottomed and substantially straight walled save for optional rounding at the top thereof) such that there is the option of the extensions contacting the back plate at the base of a channel defined by the back plate together with the shouldered upstands.

Preferably the shoulder upstands of the first extruded member are mutually facing lips.

Preferably the combination is substantially as hereinafter described with or without

reference to any one or more of the accompanying drawings.

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In still a further aspect the present invention consists in a clad and flashed exterior wall of a building where a pair of extrusions co-act (preferably to provide a negative detail appearance) with the top most extrusion having flanges, each overlying a periphery of a panel also with the same periphery of the panel located over a flank or flange of the underlying and mated other extrusion.

Preferably the other extrusion is fixed to a batten that defines an air space between the cladding panels and the building frame.

Preferably said air space is bounded by a wrap of the building frame.

Preferably the batten is fixed through any wrap into the building frame.

Preferably it is an extrusion to extrusion interaction that holds the extrusions together with proximate peripheral regions of adjacent panels each located between flanking parts of each extrusion.

In yet a further aspect the present invention consists in each extrusion of a combination substantially as hereinafter described adapted for internal and/or external

corners.

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In still a further aspect the present invention consists in, in combination, or in assembly (whether or not in use or not), a corner flashing providing pairing of extrusions substantially as hereinafter described with reference to any one or more of the accompanying drawings.

In a further aspect the present invention consists in a method of construction which involves

having or providing an internal or external corner of the building envelope whilst still substantially primarily defined by wall frames,

(optionally but preferably) wrapping or otherwise covering the exterior of such frames with a building wrap,

attaching at the corner a first flashing extension to the frame,

fitting the cladding panels into or to the now first flashing extrusion including corner with at least one of their peripheries lapping part of said first flashing extrusion and fixing each such panel through the lapped first flashing extrusion into the frame, and

providing a complementary second flashing extrusion that engages with otherwise still revealed second flashing extrusion engagement features of said first flashing extrusion to thereby provide coverage by lapping of at least some of the panel peripheries and/or coverage of the fixing of such peripheries.

In still a further aspect the present invention consists in a method of construction which involves

having or providing an internal or external corner of the building envelope whilst still substantially primarily defined by wall frames,

(optionally but preferably) wrapping or otherwise covering the exterior of such frames with a building wrap,

attaching (substantially simultaneously or serially) a spacing arrangement (a "set out" e.g. of battens) at the corner to set out from the surface of the frame (thereby defining a "set out corner") and a set out corner following first flashing extension to any such set out feature and/or to the frame,

fitting the cladding panels into or to the now first flashing extrusion including set out corner with at least one of their peripheries lapping part of said first flashing extrusion and fixing each such panel through the lapped first flashing extrusion into at least the set out feature (e.g. battens) and/or frame, and

providing a complementary second flashing extrusion that engages with otherwise still revealed second flashing extrusion engagement features of said first flashing extrusion to thereby provide coverage by lapping of at least some of the panel peripheries and/or coverage of the fixing of such peripheries.

Preferably the first flashing extrusion is substantially of an "L" shape section save for at least one upstand from each of the limbs of the "L" shape directed to one side of the "L" shape and the second flashing extrusion is likewise defined save for the upstands being complementary (i.e. from the other side of each limb of the "L" shape of the extruded section.

Preferably the present invention also consists in related methods, the extrusions themselves, the complementary flashing itself, etc.

Preferably by means of ramped shoulders, ramped ribs, etc. and/or shoulders or lips (whether ramped or otherwise) complementary thereto each complementary upstand, one from each of the first and second flashing extrusions, can be brought into a retention condition such that collectively the two sets holds one flashing to the other with second flashing extrusion in part lapping panels interposed between the two extrusions on either flank of the upstand provided interengagement members.

Preferably each upstand is at approximately 45° from its respective limb of the "L"shape.

Preferably ancillary upstands but of lesser height are provided from each of the limbs of each "L" shape to provide a proper lapping location for a panel to be abutted thereagainst, such lesser height upstands being preferably normal to the limb from which it is an integral protection.

Preferably the "L" shape is without a truncation at the interconnection between the limbs of the "L" but in some forms of the present invention, if desired, the limbs can triangulate (e.g. even curve if desired) from one to the other and thus reference to the upstands for the interengagement feature from a respective limb should equally be considered as, if desired, being an upstand from the limb or the truncation of any kind or the integral transition from one to the other.

In a further aspect the present invention consists in a corner flashing assembly of a kind capable of being used in a method of construction as aforesaid.

In still a further aspect the present invention consists in a corner flashing assembly comprising or including

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a first flashing extrusion including a non truncated or truncated "L" section having from the same side of each of the two limbs of the section (whether spaced at or beyond the transition between the two) an upstand, and

a complementary second flashing extrusion with its own upstands complementary to those of the first flashing extrusion such that the two can be brought into a lateral retained relationship with a space defined between the complementary respective limb pairs each adapted to sandwich the periphery of a panel.

In yet a further aspect the present invention consists in a clad exterior wall of a building that results from a method of construction in accordance with the present invention.

A preferred form of the present invention will now be described with reference to the accompanying drawings in which;

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Figure 1 is a plan diagrammatic view of a wall structure clad in accordance with the present invention, there being shown the inner liner of the exterior wall, a stud of the exterior wall, insulation between the studs of the exterior wall, a building wrap, a batten or blocking nailed or screwed into the stud, two proximate panels each nailed through a locating flashing back plate into the batten, and a top hat flashing member engaged by the still revealed engagement features of the back plate,

Figures 2A through 2D show some of the procedures leading to the exterior cladding fitment for an arrangement such as that shown in Figure 1,

Figure 3 is a preferred section of a back plate extrusion in accordance with the present invention,

Figure 4 shows the complementary top hat extrusion to engage with the lipped or shouldered upstands of the extrusion shown in Figure 3, such a top hat section having a capability of being retained in two conditions each corresponding to a different panel thickness,

Figure 5 is an enlarged detail of the two preferably ramped retention shoulders of the outer flashing,

Figure 6 shows the interengagement of the extrusions of Figures 3 and 4 and showing how, if desired, there can be an overcapping by a fitment of any appropriate concealment member,

Figure 7 shows an block of a suitable plastics material capable of being slidably or otherwise engaged between the extrusions whilst in a condition such as in Figure 6 reliant upon the groove or a groove being located by the lesser upstand of one of the two members,

Figure 8A shows two complementary corner extrusions having similar features to that

of the extrusion already disclosed,

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Figure 8B showing the same pair of extrusions retained in a different condition much as can the extrusions shown in Figures 3 and 4, each of the extrusions shown in Figures 8A and 8B being adapted in one order for an exterior corner and in the other order for an interior corner, and

Figure 9 shows how, if desired, a nog or dwang following batten can underlie a horizontal flashing regime similar to that described preferably with respect to a vertical clashing regime, there being a simple square butting of one to the other which reveals an opening capable of being plugged by the use of a block or the like as shown in Figure 7 in between the extrusions of the vertical flashing so as to minimise the opening at the end of the horizontal top hat featured flashing.

In the preferred form of the present invention the extrusions used for the flashing are of metal but any other appropriate material may be used.

Preferably the exterior flashing is powder coated or anodised.

Figure 1 shows a vertical view of an assembly in accordance with the present invention but a corresponding view could be prepared for a transverse view, e.g.; with the stud being replaced with a dwang. In Figure 1 there can be seen a stud 1 interposed between a building wrap 2 (e.g. CARTER<sup>TM</sup> Building Paper) and an inner liner 3 (e.g. Gibraltar board, MDF, or the like).

Nailed into the stud 1 through the building wrap or screwed into the stud through the building wrap 2 is a wooden batten 4. This provides a set out or blocking from the stud 1 and the building wrap 2.

Fitted to that batten 4 is a first flashing extrusion 5 which has preferably been fixed thereto by nailing or screwing through a weakened central region of the extrusion 5 and also through the batten itself. However it is conceivable that the batten could be first placed and thereafter the flashing 5 fixed into the batten and if desired also the stud 1.

The flanking regions of the extrusion 5 are then lapped by the cladding panels themselves. In this case panels 6 and 7, for example, 12mm or any other thickness plywood, are nailed or screwed through the extrusion 5 into the batten 4.

Thereafter the extrusion 8, being the second flashing extrusion, can be engaged with the still revealed engagement features of the extrusion 5 to thereby provide a negative detail for the assembly.

A preferred arrangement of evolving the arrangement as shown in Figure 1 is shown sequentially from Figures 2A through 2D. Following the situation as in 2D the insulation can

be installed between the studs and the nogs or dwangs and thereafter the inner liner applied.

It is to be noted that there is an air circulation space 9 provided between the building wrap and the exterior cladding (e.g. panels 6 and 7). There is also an air circulation space between the larger and smaller projections of the extrusion 5. This space can serve both for drainage or water runoff (if used horizontally) as well as for air circulation.

Figure 3 and 4 show a preferred form of the two extrusions 5 and 8 respectively.

Extrusion 5 it can be seen is substantially a planar extrusion having a central region, a sequence of lipped or shouldered upstands 11 on either side (the shoulders or lips being features 12) and spaced outwardly thereof lesser upstands 13 which serve an abutment purpose for the panels as shown in the drawings. Outwardly of the projections or upstands 13 are the flanking flanges or the like 14 preferably weakened at 15 to assist screwing or nailing as is preferably also the central region 5 at 16.

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Preferably the lips or shoulders 12 are provided with a ramping function to allow their being mated by lateral pressing with the complementary extrusion 8.

The extrusion 8 it can be seen has a top hat characteristic with a channel 17 having flanking flanges 18 each of which is to lap over an exterior cladding panel of any suitable kind whether plywood or otherwise. The channel 17 provides the negative detail of the system.

The walls of the channel 17 preferably have extensions 19, the lower end of which, as shown in Figure 4, is adapted to guide the interengagement of the extrusions and possibly even rest on the underlying extrusion between the upstands thereof in one condition. Projecting outwardly of the walls of the channel 17 are one and preferably two ramped shoulders or ridges 20 each adapted to be press fittingly interengaged (so as to be retainable) with a ramped or unramped shoulder 12. Of course the ramping could be on both extrusions or either extrusion.

A corresponding arrangement exists for corner extrusions and in this respect reference to Figures 8A and 8B shows a pairing of extrusions interengaged in the manner previously described but with "L" shaped extrusions each having a pair of upstands preferably at about 45° from each of the two limbs of the "L" and each with an interengagement feature as previously described.

Figures 8A and 8B show the same pairing of corner extrusions pressed home in two different conditions each to accommodate a different thickness of cladding.

Preferably the corner extrusions are mounted in a manner analogous to that already disclosed, i.e. on a batten or block set out so as to continue about the building frame

preferably wrapped with the suitable wrap an air space. However they need not be so set out.

It can be seen with the arrangements that horizontal arrangements, such as those disclosed by reference to Figure 1 (which was a vertical arrangement), can lead to the arrangement as shown in Figure 4 where there is the prospect of a residual opening at 21. This can be blocked by the use of a plastics or other member substantially as shown in Figure 7. Such a member with its groove or grooves can be retained between the extrusions 3 and 4 reliant upon the lesser upstands 13 engaging into a groove 22 such that the surface 23 plugs the opening 21. Any appropriate means to hold the same against any sliding (e.g. an interference fit or the like can be utilised).

The block can include water movement passageways and/or channels.

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Persons skilled in the art will appreciate how adaptions of the mated flashing extrusions of the present invention can be used where desired at the top and/or bottom of exterior cladding, if at all. Preferably however there is no need for such flashing at the top owing to an overlapping eave or the like.

It can be seen from the drawings how the air space 9 can allow drain down of moisture should there be any penetration of moisture into the structure and/or evaporation thereof. There is also the space between the upstands of the flashing extrusion 5 (i.e. between 11 and 13 in each case) to allow rundown of water or air circulation. The same gap between projections 11 and 13 can allow horizontal run of water between the extrusions (as well as air) to a stage where the moisture can run elsewhere.

It is believed that the method of construction in accordance with the present invention together with the related components, subassemblies, uses and methodologies will find widespread acceptance.

#### THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

A method of construction which involves
 providing or having been provided with a wall frame for the building envelope,
 (optionally) wrapping or otherwise covering the exterior of such frame with a building
 wrap,

attaching (substantially simultaneously or serially) an array of battens to the frame (through the building wrap if present) and a corresponding array of a flashing back plate at least to the battens,

fitting the cladding panels with at least one of their peripheries lapping part of a back

plate and fixing each such panel through the lapped back plate into at least the batten, and

providing a complementary flashing member that engages with otherwise still

revealed flashing member engagement features of such a back plate to thereby provide

coverage of at least some of the back plate lapping peripheries and/or coverage of the fixing

of such peripheries.

- 15 2. A method of claim 1 wherein there is a wrapping or covering step with a building wrap.
  - 3. A method of claim 1 or 2 wherein at least some of the battens are attached through a building wrap.
- 4. A method of any one of the preceding claims wherein the back plate is substantially of plate like planar section save for upstands on one side of the planar section axis.
  - 5. A method of any one of the preceding claims wherein each such complementary flashing member has a negative detail.
  - 6. A method of claim 5 wherein said negative detail arises from a top hat section when viewed in its final fitted condition.
- 25 7. A method of any one of the preceding claims wherein the back plate is an extrusion.
  - 8. A method of any one of the preceding claims wherein the complementary flashing member is an extrusion.
  - 9. A method of any one of the preceding claims wherein said still revealed flashing member engagement features include(s) at least one upstand having at least one retention shoulder or lip (hereafter "shoulder").
  - 10. A method of claim 9 wherein there is one said shoulder.

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11. A method of claim 9 wherein there are two shouldered upstands, each with a shoulder extend towards that of the other.

- 12. A method of claim 10 or 11 wherein the complementary flashing member is substantially of a top hat form with each outside of the channel wall of the top hat and/or some extension thereof including at least one ramped shoulder complementary of a retention shoulder of a shouldered upstand.
- 5 13. A method of claim 12 when dependent of claim 9 wherein there are two ramped shoulders on each complementary flashing member.

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- 14. A method of any one of claims 9 to 13 each backing plate is an extrusion which includes a second pair of upstands in addition to those each with a retention shoulder, such second pair of upstands being lesser in height from the plate plane and flanking the others so as to provide a buttable location feature for the edge of a panel over an outlying flanking part of the backing plate through which fixing attachment by nailing, screwing or the like is to occur.
- 15. A method of any one of the preceding claims the battens are screwed or nailed [through the building wrap (if any)] into study of the wall.
- 15 16. A method of any one of the preceding claims wherein the battens are screwed or nailed through the building wrap (if any) frame and/or top plates, bottom plates and/or nogs or dwangs where, as is desired, the flashing is to occur at the bottom or top of a panel or between a higher and lower panel.
- 17. A method of any one of the preceding claims wherein provision is made by way of location of a plugging member or block locatable on a vertically extending pairing of a flashing back plate and a complementary flashing member to block what otherwise may be an open end to the channel of any horizontally running pairing of the back plate extrusions and the complementary flashing member extrusions.
- 18. A method of any one of the preceding claims wherein that arrangement is substantially as hereinafter described.
  - 19. A method of any one of the preceding claims but where different flashing combinations are used at internal and/or external corners or, if desired at the top and bottoms of a wall, e.g. the pairing at the top could be adapted to associate with a soffit.
- 20. An extruded back plate and/or extruded negative detail flashing of a kind suitable for use in a method of construction of any one of claims 1 to 19.
  - 21. A back plate extrusion having features or a form substantially as herein described with reference to any one or more of the accompanying drawings.
  - 22. A top hat including flashing suitable or adapted to co-act with a back plate of a complementary kind, said flashing extrusion being provided with the functional features

and/or a form substantially as herein described with reference to any one or more of the accompanying drawings.

- 23. A structure clad by panels which has been erected by a method of construction in accordance with any one of claims 1 to 22.
- 5 24. In combination, whether in assembly or disassembly, a pair of extruded members,

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a first extruded member being adapted as a flashing back plate, said back plate having a generally planar form save for at least one pair of upstands, the or the most proximate pair of upstands each having at least one retention lip or shoulder ("shoulder"), and

a second and negative detailed extruded member (e.g. a top hat form) having exteriorally thereof spaced retention shoulder features each adapted to be complementary to and to be retainable by a complementary shoulder of the back plate,

wherein there is some degree of ramping of one or other of the complementary shoulder sets whereby the two extruded members can be brought into a retention relationship so that there is a prospect of flange lapping behind and in front of each of two panels to be flashed thereby.

- 25. A combination of claim 24 wherein the back plate includes a further pairing of upstands but of lesser height than the inner most pair of upstands, the lesser height upstand each to act as a butt locator of a properly lapping panel.
- 20 26. A combination of claim 24 or 25 wherein the negative detail flashing member has an extension of the walls of the top hat channel such that there is the option of the extensions contacting the back plate at the base of a channel defined by the back plate together with the shouldered upstands.
  - 27. A combination of claim 26 wherein the top hat channel is flat bottomed and substantially straight walled save for optional rounding at the top thereof
    - 28. A combination of claim 27 wherein the shoulder upstands of the first extruded member are mutually facing lips.
    - 29. A combination of claim 28 wherein the combination is substantially as hereinafter described with or without reference to any one or more of the accompanying drawings.
- 30. A clad and flashed exterior wall of a building where a pair of extrusions co-act (preferably to provide a negative detail appearance) with the top most extrusion having flanges, each overlying a periphery of a panel also with the same periphery of the panel located over a flank or flange of the underlying and mated other extrusion.
  - 31. A clad and flashed exterior wall of a building as claimed in claim 30 wherein the other

extrusion is fixed to a batten that defines an air space between the cladding panels and the building frame.

- 32. A clad and flashed exterior wall of a building as claimed in claims 30 and 31 wherein said air space is bounded by a wrap of the building frame.
- 5 33. A clad and flashed exterior wall of a building as claimed in claims 30 to 32 wherein the batten is fixed through any wrap into the building frame.
  - 34. A clad and flashed exterior wall of a building as claimed in claims 30 to 33 wherein it is an extrusion to extrusion interaction that holds the extrusions together with proximate peripheral regions of adjacent panels each located between flanking parts of each extrusion.
- 35. Any extrusion of a combination substantially as herein described with reference to any one or more of the accompanying drawings adapted for internal and/or external corners.
  - 36. In combination, or in assembly (whether or not in use), a corner flashing providing a pairing of extrusions substantially as herein described with reference to any one or more of the accompanying drawings.

# 15 37. A method of construction which involves

having or providing an internal or external corner of the building envelope whilst still substantially primarily defined by wall frames,

(optionally but preferably) wrapping or otherwise covering the exterior of such frames with a building wrap,

attaching at the corner a first flashing extension to the frame,

fitting the cladding panels into or to the now first flashing extrusion including corner with at least one of their peripheries lapping part of said first flashing extrusion and fixing each such panel through the lapped first flashing extrusion into the frame, and

providing a complementary second flashing extrusion that engages with otherwise still revealed second flashing extrusion engagement features of said first flashing extrusion to thereby provide coverage by lapping of at least some of the panel peripheries and/or coverage of the fixing of such peripheries.

# 38. A method of construction which involves

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having or providing an internal or external corner of the building envelope whilst still substantially primarily defined by wall frames,

(optionally but preferably) wrapping or otherwise covering the exterior of such frames with a building wrap,

attaching (substantially simultaneously or serially) a spacing arrangement (a "set out" e.g. of battens) at the corner to set out from the surface of the frame (thereby defining a "set

out corner") and a set out corner following first flashing extension to any such set out feature and/or to the frame,

fitting the cladding panels into or to the now first flashing extrusion including set out corner with at least one of their peripheries lapping part of said first flashing extrusion and fixing each such panel through the lapped first flashing extrusion into at least the set out feature (e.g. battens) and/or frame, and

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providing a complementary second flashing extrusion that engages with otherwise still revealed second flashing extrusion engagement features of said first flashing extrusion to thereby provide coverage by lapping of at least some of the panel peripheries and/or coverage of the fixing of such peripheries.

- 39. A method of construction as claimed in claim 38 which involves the first flashing extrusion is substantially of an "L" shape section save for at least one upstand from each of the limbs of the "L" shape directed to one side of the "L" shape and the second flashing extrusion is likewise defined save for the upstands being complementary (i.e. from the other side of each limb of the "L" shape of the extruded section.
- 40. A method of construction as claimed in claim 39 which involves by means of ramped shoulders, ramped ribs, etc. and shoulders, lips, etc. (whether ramped or otherwise) complementary thereto, one of the other upstand(s) from each of the first and second flashing extrusions, such extrusions can be brought into a retention condition such that collectively the two sets holds one flashing to the other with the second flashing extrusion in part lapping panels interposed between the two extrusions on either flank of the upstand provided interengagement.
- 41. A method of construction as claimed in claim 39 to 40 wherein each upstand is at approximately 45° from its respective limb of the "L"shape.
- 42. A method of construction as claimed in any one of claims 39 to 41 wherein ancillary upstands but of lesser height are provided from each of the limbs of each "L" shape to provide a proper lapping location for a panel to be abutted thereagainst.
  - 43. A method of construction as claimed in claims 38 to 43 wherein the "L" shape is without a truncation at the interconnection between the limbs of the "L".
- 30 44. A corner flashing assembly of a kind capable of being used in a method of construction of any one of claims 37 to 43.
  - 45. A corner flashing assembly comprising or including

a first flashing extrusion including a non truncated or truncated "L" section having from the same side of each of the two limbs of the section (whether spaced at or beyond the transition between the two) an upstand, and

a complementary second flashing extrusion with its own upstands complementary to those of the first flashing extrusion such that the two can be brought into a lateral retained relationship with a space defined between the complementary respective limb pairs each adapted to sandwich the periphery of a panel.

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46. A clad exterior wall of a building that results from a method of construction substantially as herein described by reference to any one or more of the accompanying drawings or as claimed in any one of claims 1 to 19 and 37 to 43.

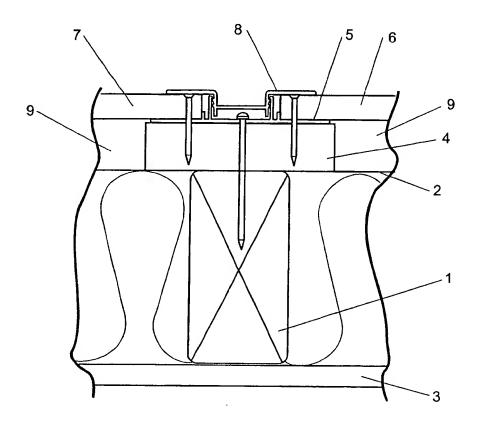


FIGURE 1

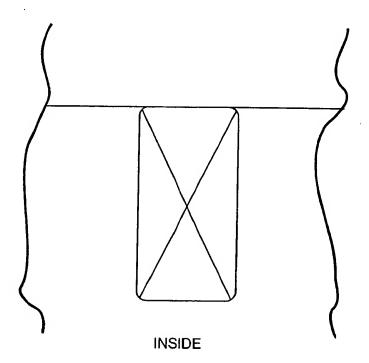


FIGURE 2A

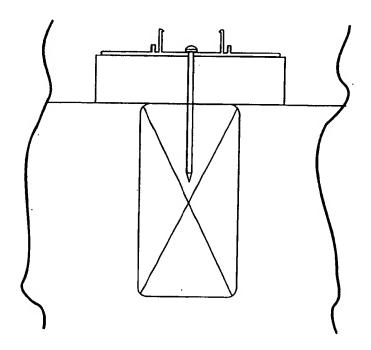


FIGURE 2B

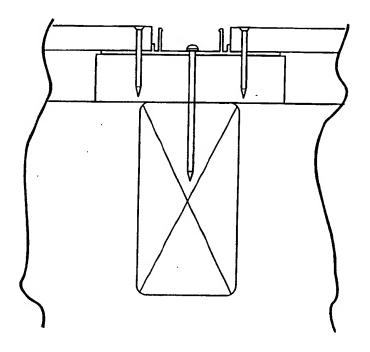


FIGURE 2C

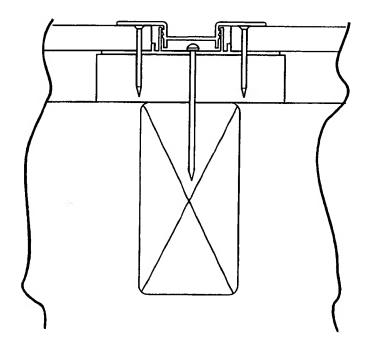


FIGURE 2D

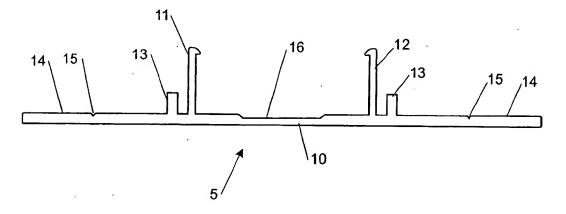


FIGURE 3

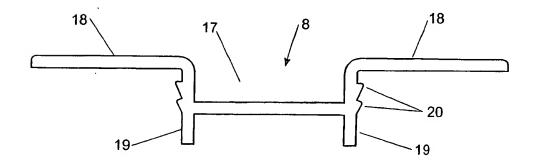


FIGURE 4

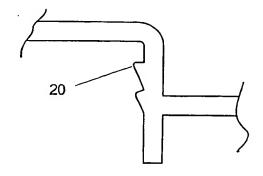


FIGURE 5

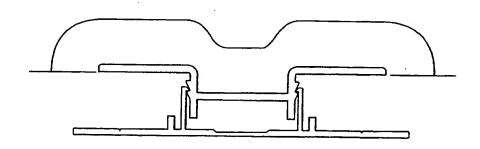


FIGURE 6

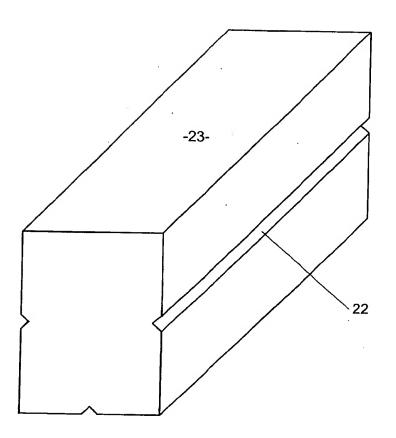


FIGURE 7

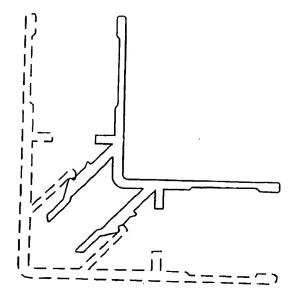


FIGURE 8A

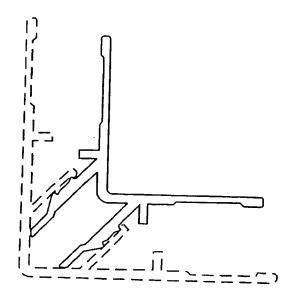


FIGURE 8B



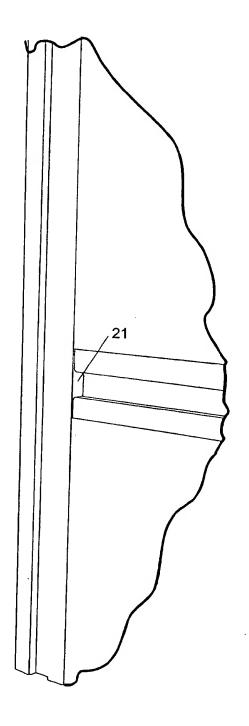


FIGURE 9